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**HYMENOPTERA FROM SOUTHERN CALIFORNIA AND NEW MEXICO,
WITH DESCRIPTIONS OF NEW SPECIES.**

BY H. VIERECK.

This paper is the result of a study of material collected in the year 1901 and received for identification from Prof. Cockerell. Unless otherwise stated, he is the collector of the specimens under consideration.

Melissodes montana Cress.

Three ♀♀, 10 to 12 mm. in length. The abdominal fasciæ vary from ochreous to whitish.

San Pedro, July 4, 11.

Specimens in the Coll. Am. Ent. Society represent the originals only and are from "Colorado" and "New Mexico" (Cresson Coll.).

One ♂, La Jolla, August, has the dorsum of thorax covered with an ochraceous pubescence. The clypeus is all yellow, a black dot on each side.

Diadasia rinconis opuntiae Ckll. (Det. Ckll.).

San Pedro, July 27, at flowers of *Opuntia*.

Diadasia australis Cress.

One ♂, San Bernardino, July 6, on sunflower. Specimens in Coll. Am. Ent. Society represent only "Colorado" and "Texas."

Nomada formula n. sp.

Black, marked with yellow; apex of wings cloudy; metathorax with a bare, satiny, triangular area.

♀.—Length 8 mm. Labrum closely indistinctly punctured. Clypeus closely punctured, the yellow area above clypeus and the yellow areas on the sides of the face more distinctly punctured, the punctures a little wider apart. The black part of the head closely distinctly punctured. Cheeks dullish, indistinctly sculptured. Head covered with a fine silvery pubescence, not so heavy as to obscure any characters. First joint of flagellum at least one-fourth longer than

the second. Pronotum punctured on the anterior margin. Dorsulum sub-opaque, closely punctured. Tubercles apparently impunctate. Tegulae with well-separated punctures. Mesopleurae punctured much like dorsulum. Scutellum with a median longitudinal impression, covered with shallow punctures. The parts of the posterior face of metathorax adjoining the area covered with a thin whitish appressed sort of pubescence. The rest of the thorax and the greater part of the legs covered with pubescence similar to that on the head. The pubescence on the inner sides of the tarsi of a pale golden tint. Wings hyaline, apical and marginal cell smoky, stigma pale brown, nervures dark brown, transverse median nerve interstitial. Abdomen finely closely punctured, covered with whitish pubescence in the same degree as the head and thorax, apical dorsal segment silvery.

Black; labrum, clypeus, base of mandibles, supraclypeal mark, lateral face marks which border the eye extending nearly to the top and over to the insertion of antennae, apical dot on scape, pronotum, tubercles, tegulae, a dot below, an almost rectangular mark below this on the mesopleurae, a dot on scutellum at each corner of scutellum, the scutellum, postscutellum, a spot on each side on the under side of mesothorax, the four posterior coxae in front, an apical mark on all femora, the tibiae chiefly on the outside, the tarsi in front, an almost even band on the first segment separated from the apex by a narrower brown band, second segment with an emarginate band, third, fourth and fifth segments with regular bands, *yellow*. Flagellum beneath light brown, above dark brown. The four anterior legs with their coxae, femora and tibiae in part testaceous to almost ferruginous.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, San Pedro, Cal., July 11.

One ♀. This comes near *modesta*, but is distinguished at once by the characters in the diagnosis. Cotype, one ♀, same place and date as the type.

Sphecodes mandibularis Cress.

One ♀, San Pedro, July 11 (T. D. A. Cockerell).

Previously recorded from Texas (Belfrage); Ottawa, Can. (Harrington); Carlinville, Ill. (Robertson); Mesilla valley, N. M. (Cockerell).

***Colletes californicus* Prov.**

Two ♂♂, La Jolla, August.

Provancher's description is very brief, but this is doubtless the species he had before him; a fuller description is submitted.

♂.—Length 8 mm. All of face below antennæ hidden by a long white pubescence. Above the antennæ the face is closely punctured, opaque, the pubescence sparser, yellowish. Cheeks with whitish pubescence, space between eyes and base of mandibles a little less than width of the latter at base, labrum polished, divided into five ridges, the one in the middle broadest, with a dent near its base. First joint of flagellum apparently a little shorter than the second. Dorsulum closely punctured, opaque, shiny in front, the punctures a little larger than those on top of head. Pubescence on dorsum of thorax the same color as that on top of the head. Mesopleuræ as closely punctured as possible without being confluent, punctures about the same size as those on dorsulum, pubescence white like on the cheeks. Disk of metathorax divided into about eight deep, shining, square pits, by narrow longitudinal ridges. Enclosed space on posterior face of metathorax not exactly smooth nor highly polished, triangular in shape and wider at base than long. The adjoining areas indistinctly sculptured, subopaque. Legs covered with loose white hairs. Wings perfectly clear, the nervures and stigma dark brown. First recurrent nervure received in about the middle of the second submarginal cell, the same cell about three-fourths as long on the radius as on the cubitus. Transverse median nervure interstitial, curved out. Abdomen subopaque, closely finely punctured. The first segment with loose hairs, those on remaining segments sparser. All the segments, except the apical, with an apical distinct fascia of appressed pubescence. On top of the abdomen the pubescence is pale yellowish, to the sides whitish. The apical segment is covered with a fine appressed, whitish pubescence.

Black; spurs white, claws dark brown.

The other specimen has the pubescence above, whiter, and the dent on the middle ridge of labrum continued into a longitudinal fovea; otherwise identical.

***Ceratina dupla* Say.**

One ♀, 5 mm. in length. Alpine Tavern, Mt. Lowe, August 12.

Spilomena foxii Ckll.

One ♀, San Pedro, July 16 (W. P. and T. D. A. Cockerell).

The only other record, that of the unique type, is Santa Fé, N. M. (T. D. A. Cockerell).

Stigmus fulvipes Fox.

Three ♀♀ found burrowing in a sandbank at San Pedro, July 6 (W. P. and T. D. A. Cockerell). Only the unique type from Los Angeles, Cal. (D. W. Coquillett), was heretofore known.

Notogonia nigripennis occidentalis n. subsp.

♀.—Length 16 mm. Differs from the typical form by the smoother sculpture and short longitudinal impressed line on each side of dorsulum, by the duller and more finely sculptured scutellum and by the medial longitudinal impression of the postscutellum. The flagellum is approximately as long as head and thorax. The flagellum of *N. æqualis* is distinctly longer than the head and thorax, measuring 10 mm. in the type (♀) and consequently 2 mm. longer than length of head and thorax (8 mm.).

The only specimen of *N. nigripennis* heretofore recorded is the unique type in Coll. Am. Ent. Society, from "New York." This is a most interesting find, and shows how little we know of the distribution of certain species.

Eucerceris insignis Prov.

Eucerceris insignis Prov. Add., Hym. Queb., p. 418, 1888 (♂ not ♀).
Cerceris provancheri D. T., Wien. Ent. Zeit., IX, 1890, p. 204.

One ♂, La Jolla, August, at flowers of *Erigonum fasciculatum*. It is evident from Provancher's description that he described a ♂ and not a ♀.

Ceroeris cockerelli n. sp.

Entire tegument strongly, more or less closely punctured.

♂.—Length 7.5 mm. Clypeus dullish with small punctures and large, close, somewhat indistinct punctures, the rest of the face below the insertion of antennæ with large, rather indistinct punctures more separated than on clypeus, the spaces between the punctures minutely punctate; area in the middle of the face broad, flat anteriorly, abruptly and decidedly keeled posteriorly between the insertion of antennæ, the face below antennæ covered with a close, fine, silvery pubescence and sparser longer hairs, head above the antennæ with strong, separated punctures, the space between them

polished. Space between posterior ocelli a little less than that between them and nearest eye margin, cheeks with deep separate punctures, not as strong as on top of head, the space between the punctures rather opaque, minutely punctured. The head and cheeks with fine long hairs. First joint of the flagellum about one and a half times as long as the second. Pronotum, dorsulum and scutellum covered with large, distinct, separated punctures, the space separating them polished, postscutellum sparsely punctured, shining, mesopleuræ strongly and coarsely punctured. Enclosed space of metanotum triangular with longitudinal sulcæ medially, polished transverse striæ radiating to each side of anterior half of sulcus, the rest of the metanotum deeply, almost confluent punctured and shining, mesopleuræ punctured, becoming impunctate near the suture; from the base of the metapleuræ rise two oblique raised lines, joining to form an acute angle, the apex pointed forward; the margins of the metapleuræ make this a triangle, with the base incurved anteriorly. Entire thorax pilose like the head around the ocelli, legs ciliate and more or less distinctly covered with a fine appressed pubescence. Wings subhyaline, nervures at base reddish, nervures and stigma brown, apical cell especially infuscated. First segment of abdomen with a small polished triangular impression, abdomen dorsally uniformly sculptured, with deep separated punctures, shining. Pygidial area practically oblong, strongly margined, deeply punctured, shining, covered with sparse hairs. The abdomen sericeous, all the dorsal segments distinctly pilose.

Black; base of mandibles, all of the face below the insertion of antennæ, a short distance above bordering on the eyes, front of scape, interrupted band on pronotum, tegulæ, spot on mesopleuræ, two spots on scutellum, postscutellum, apical third of femora, posterior trochanters, tibiæ except apical spot on posterior ones, first joint of tarsi, two spots on first dorsal segment almost united, a band on first dorsal segment almost united, a band on all the other dorsal segments (except apical) narrow medially and lateral spots on ventral segments three, four and five, *yellow*. Flagellum beneath orange, apical tarsal joints more or less testaceous.

Related to *C. insolita* Cress., from which it is distinguished by its uniformly different sculpture.

Type locality, La Jolla, Cal., August, 1901 (T. D. A. Cockrell).

Type, Coll. Acad. Nat. Sci. Philadelphia. Cotype, one ♂, same place and date.

***Philanthus crabroniformis* Sm.**

Philanthus crabroniformis Sm., Cat. Hym. Brit. Mus., IV, 474, 1856, ♂.

Philanthus multimaculatus Cam., Biol. Cent. Am. Hym., II, 133, 1891, ♂.

Philanthus anna Dun., Ent. News, VIII, 68, 1897 (♂ not ♀).

Philanthus cleomæ Dun., Can. Ent., XXX, 152, 1898, ♀.

One ♂, La Jolla, August. Two ♂♂, San Pedro, July 10. A variable species, but distinguished from its relatives by the produced front of male, the sparse deep punctures of dorsum and the closer deep punctures of abdomen common to both sexes. In the male the front has a medial longitudinal impression, or is smooth, or with a slightly raised line; an analogous variation appears in the front of the ♀, the color pattern is also variable, more elaborate or less than the pattern described by Smith. This species is recorded from Colorado, Washington, New Mexico, California (type locality), Oregon and Montana. The Colorado specimens are the more strongly colored.

***Philanthus pacificus* Cress.**

Two ♂♂, San Pedro, Cal., July 9.

***Diploplectron brunneipes* Cress.**

One ♀, identical in size, structure and sculpture with the type from Nevada; it differs in color of the prothorax which is black, and in the darker antennæ, tegulæ and legs; the abdomen is black with exception of the apex of pygidium.

San Pedro, July 11.

***Mygnumia ustulata* Dahlb.**

One ♂, La Jolla, August.

***Cryptocheilus flammipennis* Sm.**

Two ♀♀, San Pedro, July 27. Another ♀ in Coll. Am. Ent. Soc. from Palo Alto, 1891 (Leland Stanford, Jr., Univ.).

***Hemipogonius subopacus* Cress.**

One ♀, San Pedro, July 28 (A. Springer). Pennsylvania is the only locality so far known for this species represented by the unique types ♀ and ♂. It seems quite strange that it should be found on the Pacific coast. A careful comparison reveals no specific difference between this specimen and the type: the wings

are merely darker with a stronger violaceous reflection. One ♂ at the same place and time (T. D. A. Cockerell).

Agenia accepta Cress.

One ♀, La Jolla, August. Wings uniformly fuscous, apical border paler. Specimens from Atco, N. J., June, 1897 (C. W. Johnson), Dakota, Texas, Las Cruces, N.M., October 19, found dead (Ckll.), have wings mottled as in the type from Georgia.

Agenia euphorbiæ n. sp.

♂.—Length 4 mm. Head apparently impunctate, opaque, face below antennæ covered with appressed silvery pubescence, space between posterior ocelli a little less than that between them and nearest eye-margin, first joint of flagellum as long as or a little shorter than the second. Thorax dull, covered with very fine silvery pubescence, apparent only in certain lights. Wings almost uniformly darkened, pale brown, nervures and stigma dark brown. Abdomen shining, somewhat compressed, covered with a finer and less apparent pubescence than the thorax. First segment not distinctly petiolate, about twice as long as broad at apex. Legs very finely sericeous. Second submarginal cell along the cubitus a little longer than the first.

Black, tibiæ and tarsi brownish. Apical dorsal segment with a white spot.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, San Pedro, Cal. Related to *A. petiolatus* Cress., from Illinois, but smaller and without a distinctly petiolate first abdominal segment.

One ♂, July 27, on *Euphorbia*.

Anoplius (Pompilius) padrinus n. sp.

♂.—Length 4.5 mm. Head impunctate, subopaque, face below antennæ covered with appressed silvery pubescence, on the rest of the head the pubescence is so fine as to be almost invisible. Space between posterior ocelli about equal to that between them and nearest eye-margin, first joint of flagellum distinctly shorter than the second. The entire tegument has a bluish sheen to it, the thorax is covered with a very fine silvery pubescence apparent only in certain lights, on the under side and on the coxæ it is heaviest. A faint furrow down the middle of the metathorax. Abdomen polished, slightly dull, with a very fine pubescence. Legs silvery

sericeous. Second submarginal cell almost narrowed to a point on the cubitus. Wings smoky, bluish and iridescent in certain lights. Black with a bluish cast. The legs black.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, San Pedro, Cal.

One ♂, July 27, on *Euphorbia*. Much like *A. cylindricus* Cress., but that is duller and has a petiolate submarginal cell.

Anoplius (Pompilius) marginatus Say.

One ♂, San Pedro, July 11.

Pedinaspis planatus Fox.

Two ♂♂, La Jolla, August. First record of the ♂. Aside from the ordinary sexual characters this is just like the female.

Vespa occidentalis Cress.

La Jolla, August. One ♀.

Ancistrocerus halophila n. sp.

Clypeus finely, head and thorax above closely, coarsely punctured. Sides of metathorax produced, but not into a sharp point. Black on second abdominal segment hour-glass pattern.

♂.—Length, 9 mm. Clypeus bidentate, sparsely punctured, slightly produced across the middle, with sparse rather long slender hairs. Front and vertex with close coarse punctures, dull pilose, space between posterior ocelli a little larger than that between them and nearest eye-margin, head posteriorly bounded by a strong margin which joins the malar space close to the margin of the eye. First joint of flagellum about one and a half times as long as the second. Angles of the pronotum, produced though not sharply. Pronotum, mesonotum and dorsulum almost uniformly, coarsely and closely punctured, pilose like head, the dorsulum with a median impressed line anteriorly; tegulae shining, sparsely punctured, mesopleurae more closely punctured and less distinctly than mesonotum, pilose, metapleuræ rugulose dull, the middle of the margin produced into a short blunt tooth. The posterior face or basin of metathorax enclosed by well-defined margins laterally, roughened, dullish, a median raised line extending up three-fourths its height, and diverging into two raised lines before the upper margin of the basin. Tarsal claws cleft. Wings subfuscous, marginal cell and an apical margin near the marginal cell deeply clouded, nervures of basal half of wing and stigma yellowish

ferruginous to ferruginous, nervures of apical half dark brown, second submarginal cell narrowed about one-half on the radial nervure, the third hardly narrower on the radial than on the cubital nervure. Punctures of first dorsal segment coarser and closer than on the others, a median longitudinal line on the sides and apically, face of truncation shining, sparsely punctured. The succeeding dorsal segments becoming almost smooth basally, finely punctured before the maculated border, the latter distinctly closely punctured.

Black; mandibles except base and apex, clypeus, a short line bordering eyes below emargination, a spot between antennæ, front of scape, a small spot behind the eyes, a broad line on pronotum, a spot on mesopleuræ, greater part of tegulæ, a spot on each side of scutellum, a line on postscutellum, tibiæ, tarsi, part of femora, an apical band on first dorsal segment dilated at the sides, an apical band on second dorsal segment and a cuneiform mark extending in obliquely from the lateral border of the apical band, second ventral segment with an undulated apical band, separated narrowly from a large blotch which takes up nearly all the area, the other segments (apical one excepted) with an apical band, *yellow*. Hook and part of the eighth, ninth and tenth joints of the flagellum ferruginous, apical tarsal joints and claws more or less darkened.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, San Pedro, Cal.

Type and one paratype July 9, another paratype July 27. One, La Jolla, August. The La Jolla specimen has a yellow line on the lateral margin of metathorax. Allied to *A. sulphureus* Sauss., but distinct by the closely arranged punctuation of head and thorax and the more opaque appearance of these parts.

***Odynerus rufobasilaris* Ashm.**

One ♀, Alpine Tavern, Mt. Lowe, altitude 5,000 feet, August 12, on flowers of *Eriogonum polifolium*. Beside the characters given in the original description this species has the lateral angles of the metathorax produced into two long, sharp points.

***Tetrachrysis nortoni* Aar.**

One ♀, San Pedro, July 11.

***Elis plumipes* Dru.**

One ♀, two ♂♂, Coronado, July 31.

Photopsis unicolor Cress.

La Jolla, August. One ♂. An interesting variation, having the posterior half of thorax and the legs blackish. This is the first time the species is recorded from any definite locality.

Photopsis lingulatus n. sp.

Allied to *albicincta*, but distinct by the more sparsely haired abdomen and the almost impunctate second abdominal segment.

Length, ♂, 11.5 mm. Clypeus truncate, the truncation slightly rounded. Mandibles obliquely truncate, slightly notched near the middle of the inferior edge, the truncation tridentate, the apical tooth strongest, the middle one weakest, front with a median furrow extending down from the anterior ocellus to between the insertion of antennæ, front almost smooth, polished like the rest of the head, which has shallow, indistinct punctures. Space between posterior ocelli greater than that between them and the anterior ocellus and greater than the space between them and nearest eye-margin. Lower margin of eyes almost contiguous with the insertion of mandibles. First joint of flagellum about three-fourths the length of the second. Prothorax rather coarsely reticulated, only on the sides is there a small area almost smooth. Mesonotum with deep, good-sized, separated punctures; parapsidal groove distinct, deep, extending back almost to the posterior margin. The lateral furrows merely indicated by faint lines. Scutellum convex, with shallow, almost confluent punctures; postscutellum dullish in contrast to the other parts of the thorax which are shining, sculpture indefinite. Disk of metathorax with a broad almost quadrate polished area, the rest of the metathorax, excepting the greater part of the metapleuræ, very distinctly netted, the meshes large, the pits shining. Mesopleuræ bulged outward along the middle, the bulged surface irregularly reticulated, bounded by an irregular ridge formed by the termination of the reticulation. The depressed portion of the mesopleuræ with shallow punctures on the greater part, partly smooth, mesopleuræ below with a few obscure punctures, above smooth and shining. Petiole not strongly convex, about twice as long as broad at apex, shining, roughened on the basal half, with a few indistinct punctures on the apical half. Second segment polished dorsad, the punctures are fine and well separated or sparse. Ventrad the punctures are seemingly stronger, on the basal half no distinct punctures. Rest of the segments

finely sculptured to polished on basal half, the apical half hairy, a small puncture seems to be at the base of each hair. On the basal two-thirds of the third segment in the middle there is a curious area like a transverse half of an ellipse, with the rounded portion pointed toward the apex of the segment, this has a subtle surface, neither shining nor exactly dull, with an opalescent cast. A furrow of grayish felt-like pubescence close to the margin of the second dorsal segment. There is no furrow with felt-like pubescence on the second ventral segment. The wings have the third submarginal cell very faintly indicated, except at the lower corner, where it is altogether erased, not a trace of a second recurrent nervure. The insect is almost uniformly covered with a moderately abundant fine, long, pale pubescence, that on the abdomen sparsest, pubescence of dorsulum stronger, shorter, of a golden tint.

Rather brownish testaceous; space between ocelli, tips of the mandibles, and parts of the femora almost black. Flagellum brownish. Tibiæ and tarsi very pale brownish. Stigma very dark brown, nervures smoky testaceous.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, La Jolla, Cal.

One ♂, August.

ODONTOPHOTOPSIS n. g.

Erected for the reception of those species having the anterior margin of the mesosternum armed with two processes.

Type, *Odontophotopsis exogyrus* n. sp.

Odontophotopsis exogyrus n. sp.

Process of mesosternum in the shape of a broad projection pointed straight down, having the appearance of being bidentate, one tooth sharper than the other.

Length, ♂, 12.5 mm. Clypeus concave, polished. The entire head almost uniformly covered with well-separated medium punctures, an indistinct furrow extends from the anterior ocellus to between the insertion of antennæ. Posterior ocelli more than twice as far apart as they are distant from the anterior one, the distance between the posterior ocelli less than that between them and nearest eye-margin. Lower margin of eyes almost contiguous with insertion mandibles. Mandibles strong, decidedly curved, with a strong superior and inferior margin, deeply emarginate on the lower mar-

gin, the emargination extending in, one-half of the width, the part of the mandible beyond this narrow, oblique, strongly margined. First joint of flagellum about three-fourths the length of the second. Prothorax rugose. Dorsulum with strong separated punctures, the furrows of about the same degree, none strong, merely impressed lines, starting about one-third the distance from the anterior margin of the dorsulum and extending back to the posterior margin. Scutellum large, coarsely sculptured, postscutellum indistinctly sculptured, propleuræ rough above, smooth below, mesopleuræ with indistinct shallow punctures on the depressed part, the bulged part reticulated but not margined, on the posterior border smooth and polished. Disk of metathorax with an oblong area bisected by a longitudinal ridge. An almost triangular area to each side of the enclosure, the rest of the metathorax except the lower half of metapleuræ reticulated, the meshes on the posterior face largest, the lower half of metapleuræ deeply depressed, making a channel which is smooth and shining. A median raised line extends from the deepest part of the impression back almost to the posterior coxæ, where it helps to make a narrow channel, which is thus separated from the rugose area adjoining the coxæ. Third submarginal cell entirely obliterated, as is the second recurrent nervure. Petiole nearly twice as long as broad at apex, convex but not strongly so, punctures rather shallow, not sharply defined, rather close together near the margins, more separated above, second segment polished, the punctures distinctly finer than those on the first, a long line with felt-like golden pubescence extending along the dorsal segment near the margin; on the ventral segment this line is shortened almost to a spot. The rest of the segments very finely punctured.

Covered in greater part with a golden pubescence; the pubescence of the metathorax, sides of thorax and the first segment pale, silvery.

Testaceous; flagellum brownish, legs paler than rest of the insect. Stigma deep brown, nervures much paler, the membrane slightly, uniformly clouded.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, La Jolla, Cal.

Two ♂♂, taken in August. In the paratype there is a very faint indication of a third transverse cubitus.

***Odontophotopsis clandestinus* n. sp.**

Mesosternum with the processes of a quadrate character flattened, with the anterior margin pointing inward and forward, the posterior margin backward and outward. The lower margin slightly emarginate.

Length, ♂, 9 mm. Head covered with closely arranged deep punctures, closer between anterior ocellus and the insertion of antennæ than elsewhere. Posterior ocelli about twice as far apart as they are distant from the anterior one, the distance between the posterior ocelli about equal to the distance between them and the nearest eye-margin. Lower margins of eyes almost contiguous with the base of mandibles. The mandibles not so strong, more gently curved, having a superior and inferior margin, the lower margin strongly notched. First joint of flagellum about three-fourths the length of the second. Prothorax with contiguous punctures almost rugose, the punctures more distinct dorsally than on the sides. Dorsulum with almost contiguous coarse punctures, the middle pair of furrows deeper than the lateral pair, the latter a shining line. Scutellum and postscutellum opaque, roughened, not distinctly sculptured. Propleuræ closely punctured. Mesopleuræ depressed about one-half from front to back, the depressed part almost impunctate below, closely punctured above, the bulged part of mesopleuræ covered with closely arranged shallow punctures, the face directed backward and outward, shining, almost impunctate. Metathorax with a somewhat oblong enclosure extending to base of disk. This area is about one and a half times as long as wide, a little broader at apex than at base, also not square at apex. The shining surface is bisected by a longitudinal raised line, on each side of this area is a triangular area with one side on the base of the metathorax. The rest of the disk is covered with moderately large, almost hexagonal or round, shallow pits. The sides of the metathorax have one-half deeply depressed, almost a broad channel, which is in greater part shining and without sculpture, the rest of the side is closely reticulated. Wings somewhat yellowish hyaline, stigma brown, nervures paler, a pale-brown stain on the lower half of the wings. A short stump of a vein extends beyond the insertion of the second transverse cubitus on the cubital nervure. Third submarginal cell outlined by faint nervures, which are not continuous; a very faint line extending half-way up to the

cubitus stands for the second recurrent nervure. Petiole of abdomen a little less than twice as long, as broad at apex, convex but not strongly, on the disk the punctures are distinct, rather deep, large and separated. The sides of the petiole are rather moderately rugulose; second segment shining, punctured, the punctures closer together on the sides than on the disk and not as large as those on the disk of the first segment or petiole, the rest of the dorsal segments finely punctured on the apical half, second ventral segment more coarsely and closely punctured than the second dorsal segment. In the middle of the base of the exposed portion of the third dorsal segment is visible an area with a subtle surface, in outline like a U. The second dorsal segment has a lateral line appressed-like pubescence near the margin silvery, in some lights of a dirty appearance; on the second ventral segment is a similar line, but less than one-half the length of the one on the dorsal segment. The entire insect is almost uniformly covered with a moderate amount of long, fine, white, erect pubescence; that on the dorsum and margins of the segments is shorter and lies rather close.

Brownish testaceous; legs pale testaceous, antennæ dull, dirty testaceous, tips of the mandibles dark brown.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, Mesilla, N. M.

One ♂, taken at light, July 31 (T. D. A. Cockerell). In the shape of the mesosternal process this species comes close to the type of the genus, but it is quite different in many respects.

***Odontophotopsis succineus* n. sp.**

Process of mesosternum a sharp tooth, in outline an acute angle. The tooth is short, as in *mellicausus* and *brevicornis*, but sharper.

Length, ♂, 7.5 mm. Clypeus slightly concave, shining. Head polished, punctures small and sparse. Instead of a furrow running from the anterior ocellus to between the insertion of the antennæ there is a dent a short distance below the anterior ocellus, and from this a rather indistinct impressed line appears to extend to the margin of the clypeus. Hardly any space between the base of mandibles and the lower margin of eyes. Posterior ocelli about twice as far apart as they are distant from the anterior ocellus, the space between the posterior pair distinctly less than that between them and nearest margin of the eyes. First joint of flagellum a trifle shorter than the second. Mandibles not so strong, gently curved,

a distinct superior and inferior margin, the latter emarginate, but not very deeply. Prothorax rugulose, a small tuft of appressed hairs on each side of the pronotum. Dorsulum shining, the punctures indistinctly outlined, well separated. Parapsidal grooves almost absent, only one pair faintly apparent. The greater part of the anterior half of mesopleuræ depressed, shining, almost impunctate, the bulged part reticulated, its posterior border shining and almost impunctate. Scutellum and postscutellum closely sculptured, opaque. The enclosed area on metanotum shining, almost twice as long as broad at base, parallel-sided, bisected by a raised line, the rest of the metanotum reticulated, the meshes large and of irregular outline, the sides of the metathorax channeled, smooth, shining and reticulated in parts. Wings slightly smoky, stigma light brown, nervures paler, third submarginal cell practically absent, a short stump of a vein on the radius is all there is of the third transverse cubitus, a stump, a continuation of the cubitus, extends a short distance beyond the insertion of the second transverse cubitus. First segment of abdomen about twice as long as broad at apex, convex but not strongly, shining, sparsely punctured with poorly defined punctures, the sides closely punctured or rugose. Second segment polished, the punctures on it very fine and widely separated. The rest of the segments very finely sculptured, finely punctured near the apex. The area on the third dorsal segment is highly polished and extends to the punctured margin of the segment, the high polish is confined to a deltoid anterior portion of the area, in back of which is a transverse band of a more subtle character or between polished and opaque, at the base of the segment this area is about one-third as wide as the entire width of the segment. The second dorsal segment has a line of appressed silvery pubescence near the margin, and about half as long as the margin, but equally removed from base and apex, the representative of this line on the second ventral segment is about one fourth the length of that on the dorsal segment. The pubescence is erect, long and fine silvery to pale golden and almost equally moderately distributed.

Brownish testaceous, like some specimens of amber. Posterior legs pale to dark brown, anterior legs whitish-brown. Flagellum dark brown, mandibles tipped with deep brown.

Type, Coll. Acad. Nat. Sci. Philadelphia.

Type locality, La Jolla, Cal.

Two ♂♂, August. In the paratype the enclosure of metanotum is not so distinctly marked and more quadrate and the enclosure of the third segment is uniformly subtle.

Sphærophthalma harpalyce Fox.

One ♀, La Jolla, August.

Sphærophthalma pacifica Cress.

Three ♀♀, La Jolla, August, and San Pedro, July 10. Two ♂♂, San Pedro, July 25; La Jolla, August. This is the first record of the ♂. In shape and color it is much like the ♀. There can be no mistake about its identity. The wings are almost black.